Chapter 7 Alternatives Analysis

Introduction to Developing Alternatives

n the previous chapter, the baseline of socio-economic information and travel measurement tools have been established for the Study Area for 2007 and for planning year 2040, now is the time to develop and evaluate transportation network alternatives. Four alternatives were developed in collaboration with the Project Management and Steering Committees to be considered by the Working Groups and the public at large. Each alternative has a theme that is reflected in the different mix of collector, arterial and freeway roads along with a mix of transit options. Each of the transportation network alternatives was modeled, analyzed and compared to the 2007 existing and planning year 2040 transportation network performance to give a range of planning options for consideration.

Baseline Assumptions

As part of the modeling effort, capacity improvement projects were included from 2008 2013 Transportation Improvement Program (TIP), 2008 - 2013 Statewide Transportation Improvement Program (STIP), along with projects currently under construction such as the widening of I-15 in Davis and Weber County and the FrontRunner commuter rail project. These projects are collectively referred to as "existing" and "committed projects." The existing and committed projects were modeled with the 2040 socio-economic data and are the basis of the analysis in the remainder of this report. It should be noted that a number of projects have not been included in the



Transit to downtown Ogden was included in every alternative.

2040 modeled transportation network because they do not increase capacity through new construction. Typical projects in the STIP, but not included in the modeling effort are the following:

Parking

Bridges

Preliminary Engineering

Planning

• Pavement

Table 2 shows a list of capacity improvement projects that are included in the modeling effort.

Table 2: Committed Projects included in the 2040 Model

				Future Travel
Location	From	То	Description	Lanes
I-15	Farmington	Gordon Avenue	Adding HOV Lane	6 + 2 HOV
Syracuse Road	1000 West	2000 West	Widening	4
SR-108	Syracuse Road	Hinckley Drive Extension	Widening	4
I-15/Fort Lane	Layton City	-	New Interchange	-
Riverdale Road	I-15	Washington Boulevard	Widening	6
I-15 /SR-97 (Roy)	-	-	Widening Ramps	2
700 South (Clearfield)	SR-126	1400 West	Widening/New Construction	4
200 South (Syracuse)	1400 West	2000 West	New Construction	4
West Hill Field Road	2200 West	3200 West	New Construction	4

The Level of Service (LOS) analysis of this study, the WFRC Regional Transportation Plan (RTP) projects are used as a comparison to the committed projects. The RTP includes projects planned for, but not necessarily funded, to the year 2030.

Transportation Alternatives Overview

In order to determine which grouping of projects would provide the best east-west mobility in the northern Davis and Weber counties, transportation alternatives were developed for consideration by the Steering Committee, Working Group members, and the public at large. Each alternative package was created with a focus on relieving projected east-west transportation demands and associated congestion based upon the growth in the Study Area described in a previous chapter.

The alternative packages were developed and analyzed so as to lead to a preferred set of projects that would be recommended to UDOT by the Project Steering Committee and reviewed by the Working Groups and members of the public in an open house forum. These projects represent a long term, 2040, vision of transportation improvements in the Study Area. Additionally, a five-year priority project list of transportation projects has

been identified in sufficient detail to initiate project programming in the Statewide Transportation Improvement Program (STIP).

Description of Process and Criteria for Selecting Projects for Each Alternative

At a Steering Committee meeting in December 2007, facilitated by members of the Consultant Team, participants discussed what would be the appropriate parameters of the Davis Weber East-West Transportation Study. The key discussion areas included: safety, economic development, environment/quality growth, funding, mobility/multi-modal, and East/West vs. North/South.

The discussion among the Steering Committee members helped the Consultant Team members to define necessary parameters to develop transportation alternative packages for consideration that reflect local values and knowledge. The overall attitude of the Steering Committee was that they wanted to be more visionary as opposed to reactionary when handling the upcoming transportation needs of the burgeoning population. The discussion of specific key areas provided valuable local information and values to the Consultant Team which guided the selection of individual projects rolled into different alternatives.

Each of the four transportation alternatives represents a separate vision of the future transportation network in the Study Area; each alternative has a mix of capacity enhancing roadway and transit projects. When viewing the individual projects included in each transportation alternative, there is a high level of similarity. However, it should be noted that the unique design of each project in each of the transportation alternatives is different. For example, the SR-67 (Legacy Parkway Northward Extension) project is reflected as an arterial in some alternatives and a freeway in others. The outcome of a project's unique design results in four transportation alternatives that perform very differently and reflect a separate future transportation network in the Study Area.



Steering committee members prepare for a meeting.

The four transportation alternatives range from an automobile centric to transit centric focus. The graphics for the transportation alternatives were developed along with a narrative to assist the attendees of the public open houses to imagine in their mind's eye the alternative presented.

Description of Alternative Project Packages

Individual transportation improvement projects, including highway and transit improvements, have been grouped together into four different themed packages. As indicated before, the various transportation alternative packages propose to relieve projected east-west travel demands and problems that have, and will, develop as a result of the growth in the Study Area.

Each individual project within a specific alternative has been detailed to identify the planning level project cost, degree of proposed access control, the approximate environment or social impact, and the relative community acceptance. What follows is a description of each transportation alternative developed collaboratively by the Consultant Team with the identified stakeholders participating in the Steering Committee and Working Groups. The first paragraph in each alternative is the narrative that accompanies the maps that provide a graphic illustration of the proposed transportation alternatives featured.



Description of Yellow Alternative:

Narrative accompanying Yellow Alternative map:

In 2040 we want to... Be able to get to and from Salt Lake much more easily, quickly, and safely than we do now. We want the convenience of doing our grocery, clothing, hardware, automotive, and home improvement shopping in the same area, and feel we don't have enough of those centers available now. We also don't mind driving a bit to get there since we can get it all done in one trip. We want to be able to get to the commuter rail without too much trouble so we can use our cars a bit less and improve air quality. We're willing to spend money to have good roads and expect our politicians to place high value on transportation.

Basically, the Yellow Alternative focuses on increasing the number of roads as well as widening others to make it more accessible for motorists to get where they need to go quickly. For example, SR-67 (Legacy Parkway Northward Extension), by 2040, becomes a six lane roadway in order to offer more north south travel options for residents in the western areas of Weber and northern Davis County. In this alternative, motorists have several options such as I-15, SR-67 (Legacy Parkway Northward Extension) and commuter rail when traveling from Ogden to Salt Lake City and areas south. Commuter rail is fully operational in this alternative, but access to local transit is limited. intersections along I-15 will be upgraded to create quick and efficient movements when accessing or exiting from the roadway. Land use planning efforts remain separated from transportation planning. In other words, land use and transportation networks are planned separately rather than considered together so that access management on state roads can be considered. Land use decisions are often at the local level whereas transportation planning is done primarily at the state level. Along the spectrum of the transportation alternatives, the Yellow Alternative represents the most auto-centric option.

To help the reader understand how one project design can change from one transportation alternative to another, SR-67 (Legacy Parkway Northward Extension) will be used as an example. Each alternative represents a bundle of separate projects that each have a different design in each of the four transportation alternatives. The SR-67 (Legacy Parkway Northward Extension) project will be used to show how a project design can change from one alternative to another resulting in four separate transportation alternatives or visions for a future transportation network in the Study Area. In the Yellow Alternative, SR-67 (Legacy Parkway Northward Extension) is programmed as a six lane freeway from I-15 in Farmington to 5600 South in Weber County. At 5600 South and proceeding northerly, SR-67 (Legacy Parkway Northward Extension) is a six lane arterial past Plain City.

Description of Blue Alternative:

Narrative accompanying Blue Alternative map:

In 2040 we want to... Feel like we can get to Salt Lake or Ogden by car, train, or bus with relative ease. We want to be able to get to and from the commuter rail stops nearly as easily as we can get on the freeway. We would like to see shopping areas build around job centers so we can keep commerce localized. We know there will be increased congestion, but we think buses and other transit will help minimize it. We want to maintain high-speed roads, like freeways and wide arterials.

In the Blue Alternative there is still an emphasis on widening and building new roads, but this alternative introduces local transit options. Now individuals will be able to travel from the Ogden area to Salt Lake by car, bus or commuter rail. For example, downtown Ogden will be served by a Bus Rapid Transit (BRT) route that connects the Ogden Intermodal Transit Hub with Weber State University allowing faculty, staff and students more options to access the campus as well as destinations along the way. The interchanges along I-15 will be evaluated individually to determine what type of upgrade would be necessary to provide for efficient flow of traffic that meets the capacity needs of the roadway. Along the spectrum of transportation alternatives, the Blue Alternative is still auto-centric, but introduces local transit as an additional way to travel.

In the Blue Alternative, SR-67 (Legacy Parkway Northward Extension) is programmed as a six lane expressway from I-15 in Farmington to 5600 South in Weber County. From 5600 South northerly past Plain City, it is programmed as a four lane expressway.



Description of Red Alternative:

Narrative accompanying Red Alternative map:

In 2040, we want to ... Work and play a bit more in our own communities, and build up Ogden, and to a lesser extent Layton, Riverdale, and Clearfield as our regional centers rather than always going to Salt Lake to enjoy "big-city" life. We want it to be easier to drive from one town to the next. We want to build flexibility into our transportation plans so we can adapt to funding priorities and scale our plans depending on funding availability. We want to be able to get east and west across the big freeways more easily and safely-whether in cars, on bikes, or even on foot. We don't mind some congestion due to north-south commuting if it helps promote policies toward focusing regional development in this area.

The Red Alternative strives to connect planning for land use consideration with planning for transportation networks. Because of the increased local transit, it makes sense to promote high density land use in target areas that allows residents to be able to shop, work and live in their local communities. Regional transit in the Red Alternative allows for connectivity to larger metropolitan areas to access cultural activities, shopping, recreation and other needs. Since residents have more options to travel via other modes of transportation, building new or widening roads is less important than it once was. Light rail is now a part of downtown Ogden and a BRT loop connects it with the Ogden Intermodal Transit Hub.

The Red Alternative accommodates regional growth well because it provides large dense urban areas, such as Ogden, along with lower scaled mixed use developments in the outlying or rural areas that are connected by transit. As a result of the efficient local transit, land uses such as Transit Oriented Developments (TOD) will be constructed. These provide for a more pedestrian friendly community that allows small scale economic growth. By being able to use various modes of transit, there is less automobile use, and air quality will improve. This Alternative upgrades several interchanges on I-15 and clearly focuses on transit in the transportation alternative spectrum.

In the Red Alternative, SR-67 (Legacy Parkway Northward Extension) is programmed as a four lane arterial to SR-39 or 1200 North in Weber County. North of SR-39 or 1200 North, it is programmed as a two lane arterial.

Description of Orange Alternative:

Narrative accompanying Orange Alternative map:

In 2040 we want to... Live and work in the same community. We want it to be easy to get to and from work, and to do errands by having many options to get around-car, bus, bike, or walk. We want to plan our transportation in a way that can be scaled to our needs, and funded appropriately. We want to be able to easily get to Ogden, Layton, Clearfield, Riverdale, and other job centers in our communities and feel that our transportation facilities should always begin and end at a pedestrian scale, provide direct paths to our commercial centers, and be scaled to the size and most efficient travel mode of each center.

The Orange Alternative provides many different mode choices for travel. Transit is the dominate theme for this alternative as it encourages residents to walk to the store, take mass transit to work and to recreate in and enjoy the area in which they live. In this alternative, land use and planning are considered together. Some of the transit routes included are Light rail extending from North Ogden to downtown Ogden along Washington Boulevard. A secondary light rail route connects the Intermodal Transit Hub to Weber State University. A BRT loop will begin at Hill Air Force Base that will serve the Clearfield and Roy commuter rail stations and will have an extension that serves the communities along the way before its final stop at the Farmington commuter rail stop. Local bus service is also increased so that headway, or time between buses, is short. All I-15 interchanges are upgraded to provide ease in accessing and exiting the freeway. Along the transportation alternative spectrum, this alternative is the most transit-centric.

In the Orange Alternative, SR-67 (Legacy Parkway Northward Extension) is programmed as a four lane arterial to 1200 North or SR-39 in Weber County. From 1200 North, no transportation project has been anticipated northerly past Plain City.



Figure 19: Yellow Alternative

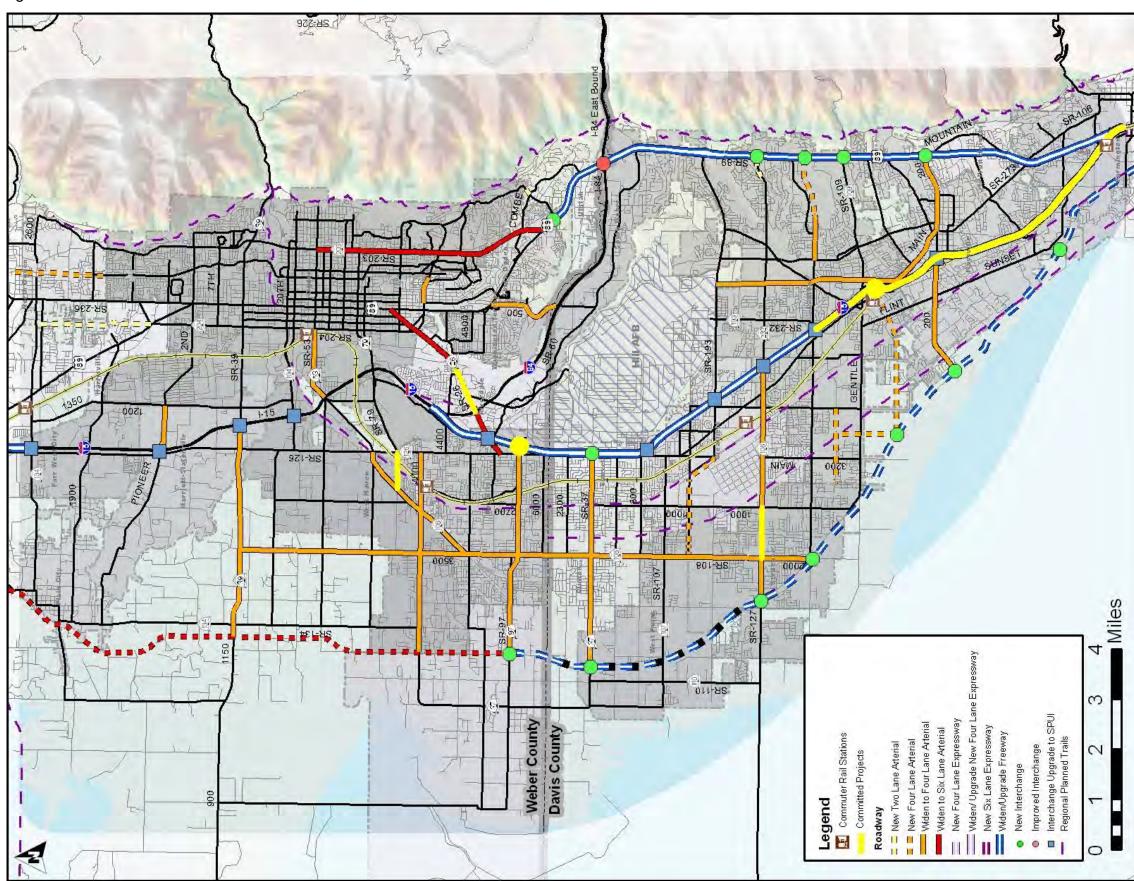


Figure 20: Blue Alternative

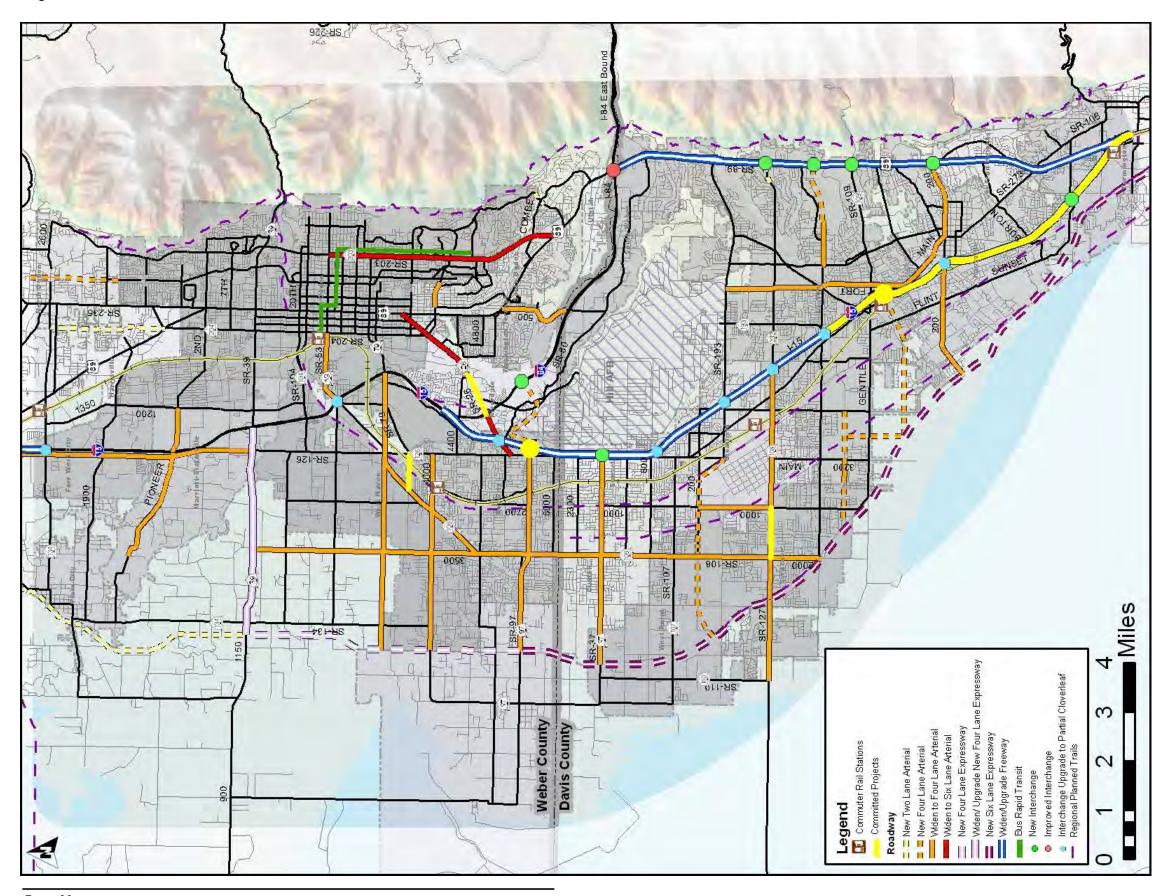


Figure 21: Red Alternative

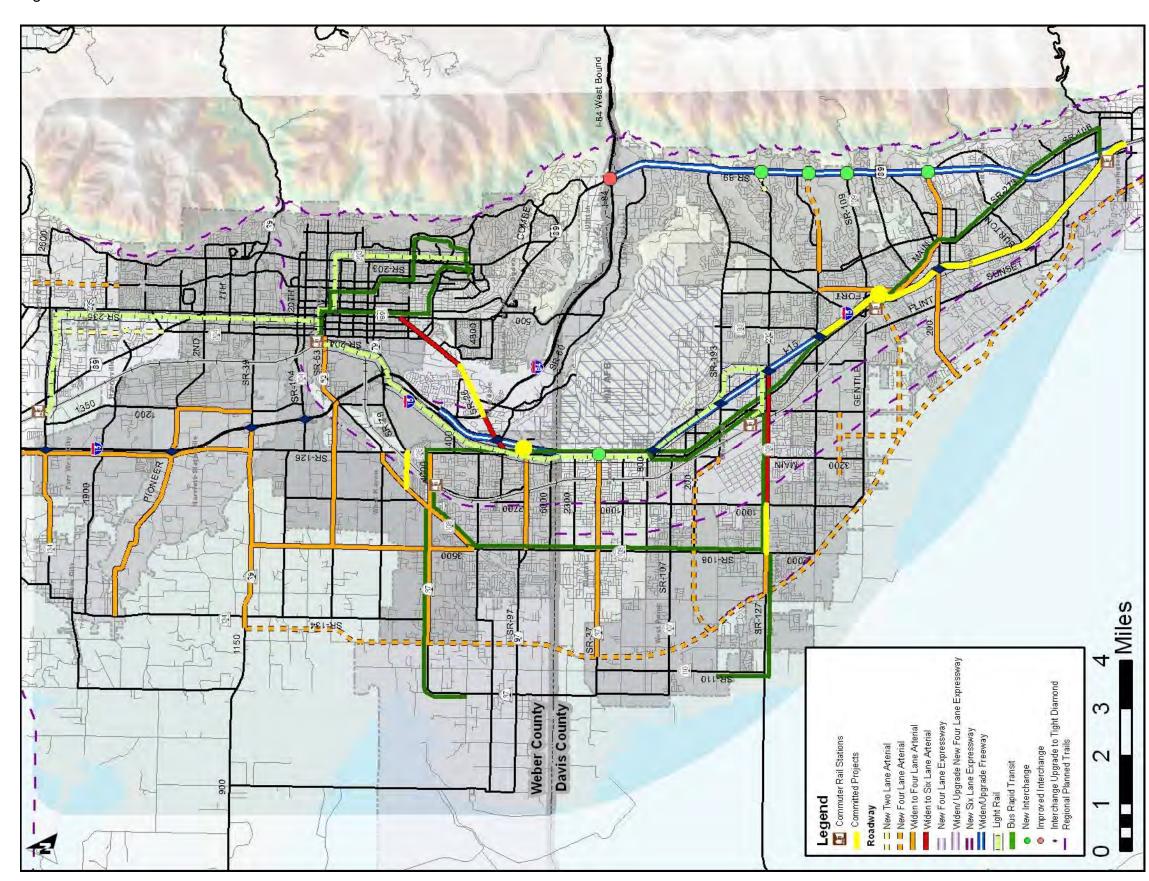
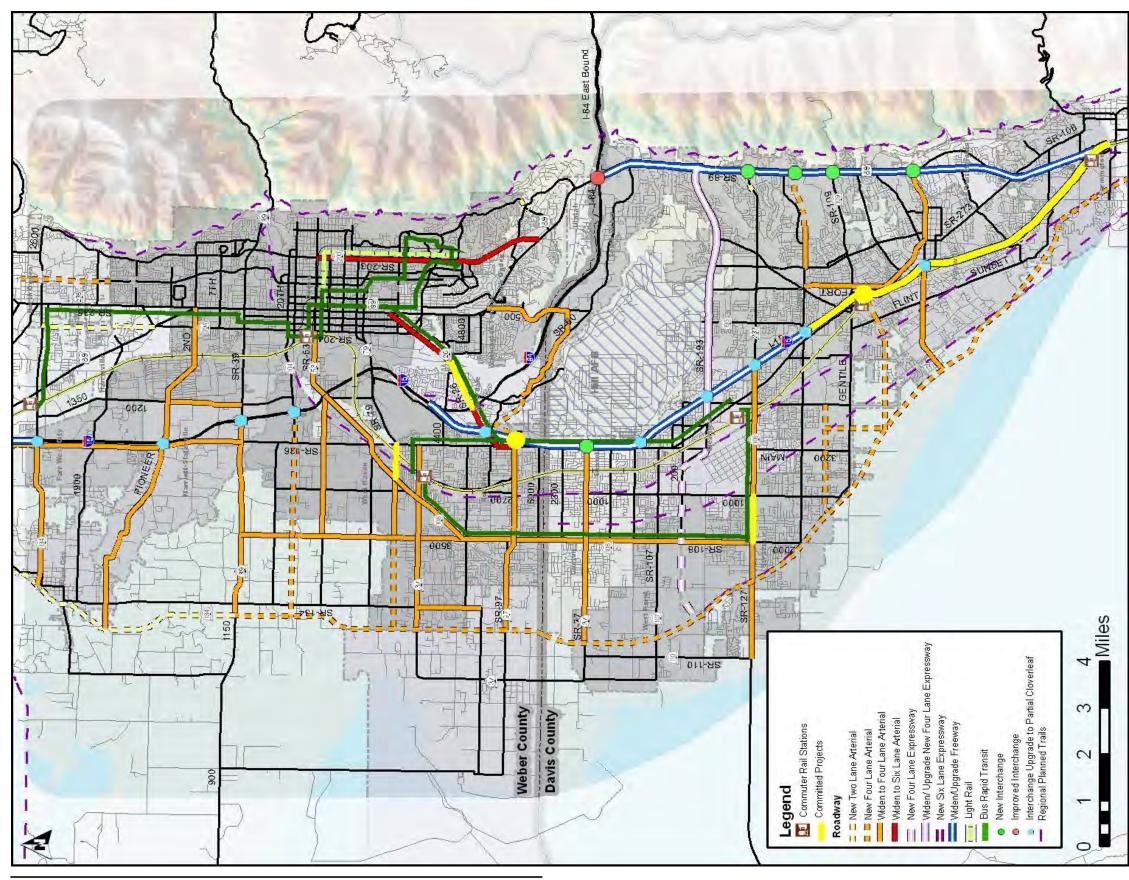




Figure 22: Orange Alternative



Evaluation Measures for Selected Alternative Project Package

The tools used to evaluate each transportation alternative package are introduced in this section. These evaluation measures were first introduced in an earlier chapter, but are provided here for ease of reference. A more expanded discussion occurs of each evaluation measurement is provided in the future conditions chapter of this report.

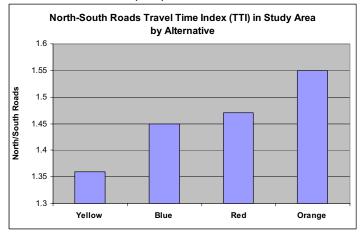
- Travel Time Index (TTI) refers to a measure of congestion determined by dividing the time it takes to travel a given road segment at the peak hour, by the free-flow travel time for that segment. A TTI of 1.00 indicates that there is no difference between travel time on a given road during the peak hour and free-flow time. A TTI greater than 1.00 is representative of peak hour trips taking longer than non-congested travel.
- Level of Service (LOS) standard measurement used to identify the amount of congestion on a given roadway. Level of service is given grades of A through F, with A being free-flow conditions and F being highly congested, "parking lot" conditions.
- Vehicle Hours of Travel (VHT) a calculation of the total time all vehicles spend on the transportation network in an average day. This measure is obtained from the regional travel demand model and helps to identify area-wide congestion changes.
- Vehicle Miles Traveled (VMT) a measurement of the total vehicle miles traveled.
- Congested Speed Average speed across all roadways during a weekday during the peak travel hours from 3:00 p.m. to 6:00 p.m.
- Free Flow Speed Average speed across all roads during a weekday where is no congestion or adverse conditions exist.
- Transit Trips a calculation of the number and percent of transit trips by alternative.
- Trips exiting south a calculation of the number and percentage of trips headed south.

The Travel Demand Model, year 2040, is evaluated for each alternative.

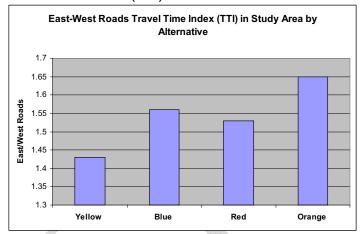


Figure 23: Travel Demand Model Results

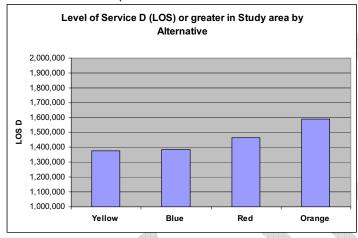
Travel Time Index (TTI) North-South



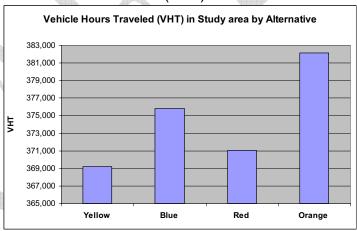
Travel Time Index (TTI) East-West



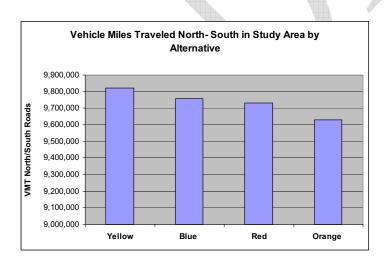
Level of Service (LOS



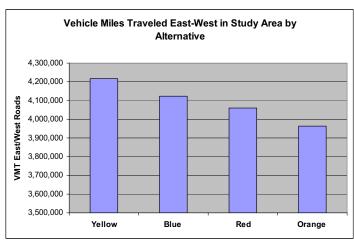
Vehicle Hours Traveled (VHT)



Vehicle Miles Traveled (VMT) North-South



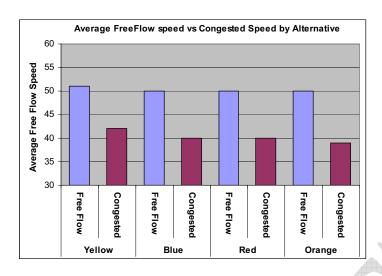
Vehicle Miles Traveled (VMT)East-West

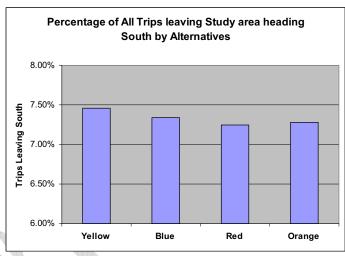


Average Free Flow Speed versus Congested Speed

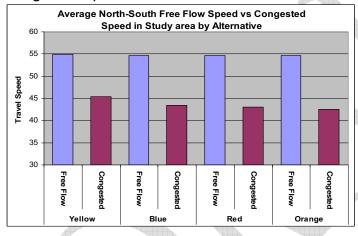
Trips Leaving Study Area Heading South

DAVIS WEBER EAST WEST TRANSPORTATION STUDY

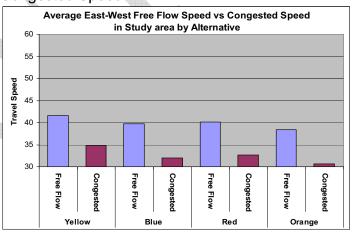




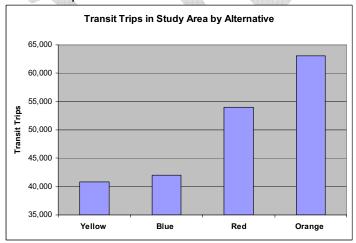
North-South Average Free Flow Speed versus Congested Speed



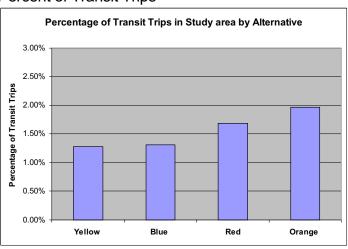
East-West Average Free Flow Speed versus Congested Speed



Transit Trips



Percent of Transit Trips





Steering Committee Evaluation Criteria

The Study Area Steering Committee has specific responsibility for providing evaluation criteria to be considered by the Consultant Team on each of the proposed transportation packages. On April 23, 2008 the Steering Committee met and was provided with a presentation that introduced each of the transportation alternatives along with established transportation planning evaluation criteria. During the presentation of the four alternative packages, the individual Steering Committee members were asked to vote on specific criteria that would help in the development of the preferred package of projects that would result in a vision of transportation improvements in the Study Area along with a five year list of projects. After the presentation by the Consultant Team and discussion by members of the Steering Committee, the following criteria were also applied in the selection process: cost of packages, travel patterns, balance of north/south and east/west roads and traffic congestion.

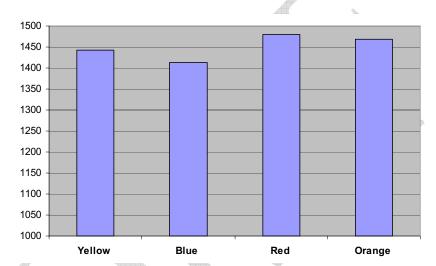


Figure 24: Acres of Land Impacted by Alternatives

Many comments were received and incorporated in the Preferred Transportation Package.

Preferred Alternative

Based upon feedback from the Steering Committee, combined with the established evaluation criteria, a package of transportation projects was selected that represented a vision of transportation improvements in the Study Area. The Blue Alternative provided a base of projects that was modified to reflect the preferred set of transportation projects that would best serve the transportation needs of local residents in the Study Area. The project list is now referred to as the Preferred Transportation Package. All the proposed additions and deletions of specific projects were finalized with members of the Steering Committee, Working Groups and members of the general public in open house forums prior to analysis through transportation modeling.



Chapter 8 Preferred Transportation Package

fter the initial selection of the Preferred Transportation Package, as previously indicated, modifications were made by the Steering Committee, Working Groups and members of the general public in order to create a comprehensive transportation network solution for east west travel in the Study Area. The process of modifications to the Preferred Transportation Package took approximately 30 days by the Consultant Team. An example of a project modification is Pioneer Road in the Marriott-Slaterville area. Pioneer Road was originally slated to be upgraded to a four lane roadway. After discussion and input, Pioneer Road improvements now reflect safety improvements at key intersections. A high level description of the Preferred Transportation Package is reflected in the following:

The Preferred Transportation Package will:

- Continue to allow for high speed travel on new or improved freeways and high speed arterials.
- Balance the needs of east-west travel with north-south travel so that long distance trips can be accommodated on a network of functional streets.
- Allow for a choice of travel modes particularly to employment and activity centers in Salt Lake, Ogden, Hill Air Force Base, and other locations by improving mass transit and nonmotorized connections to mass transit.
- Allow for reasonable increases in traffic congestion at the system level by minimizing traffic congestion within improved corridors.



Construction in Davis and Weber Counties



The Preferred Transportation Package is a list of concept projects that UDOT expects to be able to implement within the next 30 years based upon revenue assumptions and the selected funding source. The list is broken into three phases or priorities in order to have a defined starting point from which to develop planning level cost estimates. Determining project priority also helps establish which projects have the greatest ability to alleviate current or future congestion. The cost estimates will be better defined by further study before having necessary funds allocated to complete the project through the Statewide Transportation Improvement Program process.

- Phase 1: Projects will be initiated 2008-2013
- Phase 2: Projects will be initiated 2014-2023
- Phase 3: Projects will be initiated 2023-2033

The next step that is required to implement the recommendations of the DWEWTS is for UDOT to present the findings to the Utah State Legislature as required by the language of H. B. 108 (2007). The Legislature will review the recommendations and consider a possible increase in funding to complete projects identified in Phase I that would immediately enhance east-west traffic flow. From there, WFRC will review the projects in Phases 2 and 3 when they next update their Regional Transportation Plan in approximately four years.

Below is the list of projects included in the Preferred Transportation Alternative along with a map of the projects and another map showing the phasing of the transportation and transit projects.



Table 3: List of Projects in the Preferred Transportation Package

			Ξ.	Highway			
Project	Priority	Location	From	To	Description	Lanes	Cost
B22a	—	Legacy Parkway	Farmington	Syracuse Road	New Expressway	Six	807,000,000
B25	—	SR-108	Syracuse Road	ve		Four	173,000,000
B26	—	Harrison Boulevard	NS-89	24th Street		Six	99,000,000
B32	—	1800 North (Sunset)	1-15	Legacy	Widening/New Constructi	Four	48,000,000
B33	<u>_</u>	200/700 South (Clearfield)	Main Street	2000 West	Widening/New Constructi	Four	70,000,000
B36	<u></u>	Antelope Drive	2550 E.	NS-89	New Construction	Two	4,000,000
B38	—	200 North (Kaysville)	1-15	Legacy		Four	42,000,000
B44	<u>_</u>	40th Street	Adams Ave	Gramercy Ave		Four	15,000,000
B51	<u></u>	Main Street	1-15	200 North (Kaysville)		Four	23,000,000
B54	<u></u>	Riverdale Road	SR-126	Washington Boulevard		Six	92,000,000
F7	—	Syracuse Road	2000 West	Legacy		Four	17,000,000
F8	—	Fort Lane	Main Street	Gordon Ave		Four	24,000,000
F9	—	700 South (Layton)	1-15	Flint		Four	13,000,000
F14	—	3600 West (Layton)	Gordon Ave	Legacy	New Constructi		28,000,000
B20b	2	1-15	Gordon Ave	I-84		Six + HOV	213,000,000
B22b	7	Legacy Parkway	Syracuse Road	5600 South		Six	455,000,000
B23	2	Legacy Parkway	5600 South	12th Street	essway	Four	293,000,000
B28	7	I-15	2700 North	Box Elder County		Six	86,000,000
B39	2	Pioneer Road	1-15	3500 West			8,000,000
B40	7	12th Street	1-15	Legacy	o Expressway	Four	97,000,000
B41	2	5500/5600 South	1-15			Four	94,000,000
B43	7	24th Street	1-15	Wall Avenue		Four	119,000,000
B45	7	4000 South	1900 West	Legacy		Four	92,000,000
B49	7	700/900 South (Layton)	Flint	2700 West	truction	Four	000,000,99
B56	7	200 North (Kaysville)	SR-126	NS-89		Four	26,000,000
T3	2	NS-89	I-84	24th Street	Widening	Six	203,000,000
F4	2	SR-193	1-15	NS-89	ent		24,000,000
F6	2	200 South (West Point)	2000 West	Legacy	struction	Four	40,000,000
F15	2	1800 North (Sunset)	200 West	Legacy		Four	46,000,000
B24	3	Legacy Parkway	12th Street	S & E Interchange	struction	Two	203,000,000
B29	င	Adams Ave Toll Road	08-SU	1-84		Four	21,000,000
B30	က	3500 West	Midland Drive	12th Street	New Constructi	Four	227,000,000
B31	က	1900 West	12th Street	S & E Interchange		Four	181,000,000
B34	က	Syracuse Road	Legacy	SR-110	Widening	Four	29,000,000
B37	က	Gordon Avenue	Fairfield Road	NS-89	nstructi	Four	74,000,000
B42	က	5500/5600 South	1-15	1-84		Four	122,000,000
B48	က	Hill Field Road Extension	2200 West	3200 West		Four	55,000,000
B50	3	2700 West (Layton)	Hill Field Road	Legacy	truction	Four	44,000,000
B52	က	Fort Lane	Gordon Ave			Four	85,000,000
B53	3	400 North	1-15	1200 West	Widening	Four	26,000,000
B57	3	Monroe Boulevard	1300 North	3000 North	struction	Four	98,000,000
B58	3	1000 West	200 S	Antelope/SR 108		Four	55,000,000
B59	က	3300 S	1-15	Legacy		Four	212,000,000
C61	3	2100 S / 2550 South		Legacy		Four	201,000,000
F5	က	2700 North	1-15	Legacy		Four	142,000,000
F12	3	400 North	1200 West	Wall Avenue	Widening/New Constructi	Four	122,000,000

			Interchanges		
Project	Priority	Location	Interchange/Intersection	Description	Cost
B2	1	1-15	Layton - Hill Field Road	Upgrade	32,000,000
B4	—	1-15	Clearfield - SR-193	Upgrade	20,000,000
B5	<u></u>	-15	Clearfield - 650 North	Upgrade	34,000,000
B6	_	-15	Roy - 5600 South	Upgrade	34,000,000
B7	—	1-15	Riverdale - Riverdale Road	Upgrade	35,000,000
B13	<u>_</u>	1-15	Sunset - 1800 North	New Interchange	155,000,000
B 1	2	1-15	Kaysville - 200 North	Upgrade	40,000,000
B3	2	1-15	Layton - Antelope Drive	Upgrade	40,000,000
B15	2	0S-89	Layton - Gordon Avenue	New Interchange	198,000,000
B16	2	NS-89	Layton - Oak Hills Drive (SR-109)	New Interchange	218,000,000
B17	2	NS-89	Fruit Heights - 400 North	New Interchange	247,000,000
B18	2	NS-89	-84	Upgrade	319,000,000
F11	2	I-15	24th Street Interchange	Upgrade	160,000,000
B12	3	1-15	Pleasant View - 2700 North	Upgrade	67,000,000
B14	3	NS-89	Layton - Antelope Drive at Antelope Drive	New Interchange	390,000,000
B19	က	I-84	5600 S - Riverdale	New Interchange	244,000,000
F16	က	1-15	Shepard Lane-Farmington	New Interchange	244,000,000

ProjectPriorityLocationFromToDescriptionB604th Street/Harrison BlvdOgden Commuter Rail Sta WSUBus Rapid TransitF22Banberger LineOgden Commuter Rail Sta Hill/ClearfieldBus Rapid TransitF133Washington to Roy rail statitNorth OgdenRoy Commuter Rail Statit					Transit		
on Blvd Ogden Commuter Rail Sta WSU Ogden Commuter Rail Sta Hill/Clearfield y rail stati(North Ogden	Project	Priority	Location	From	OL	Description	Co
nuter Rail Sta Hill/Clearfield Roy Commuter Rail Stat	B60	Ţ	24th Street/Harrison Blvd	Ogden Commuter Rail Sta		Bus Rapid Transit	81,(
	F2	2	Banberger Line	Ogden Commuter Rail Sta		Bus Rapid Transit	427,(
	F13	3	Washington to Roy rail stati		Roy Commuter Rail Station	Bus Rapid Transit	325,(

Phase	Priority 1	Priority 2	Priority 3	Total
Cost	\$1,846,000,000	\$3,511,000,000	\$3,197,000,000	\$8,554,000,000



Figure 25: Anticipated Transportation Improvements

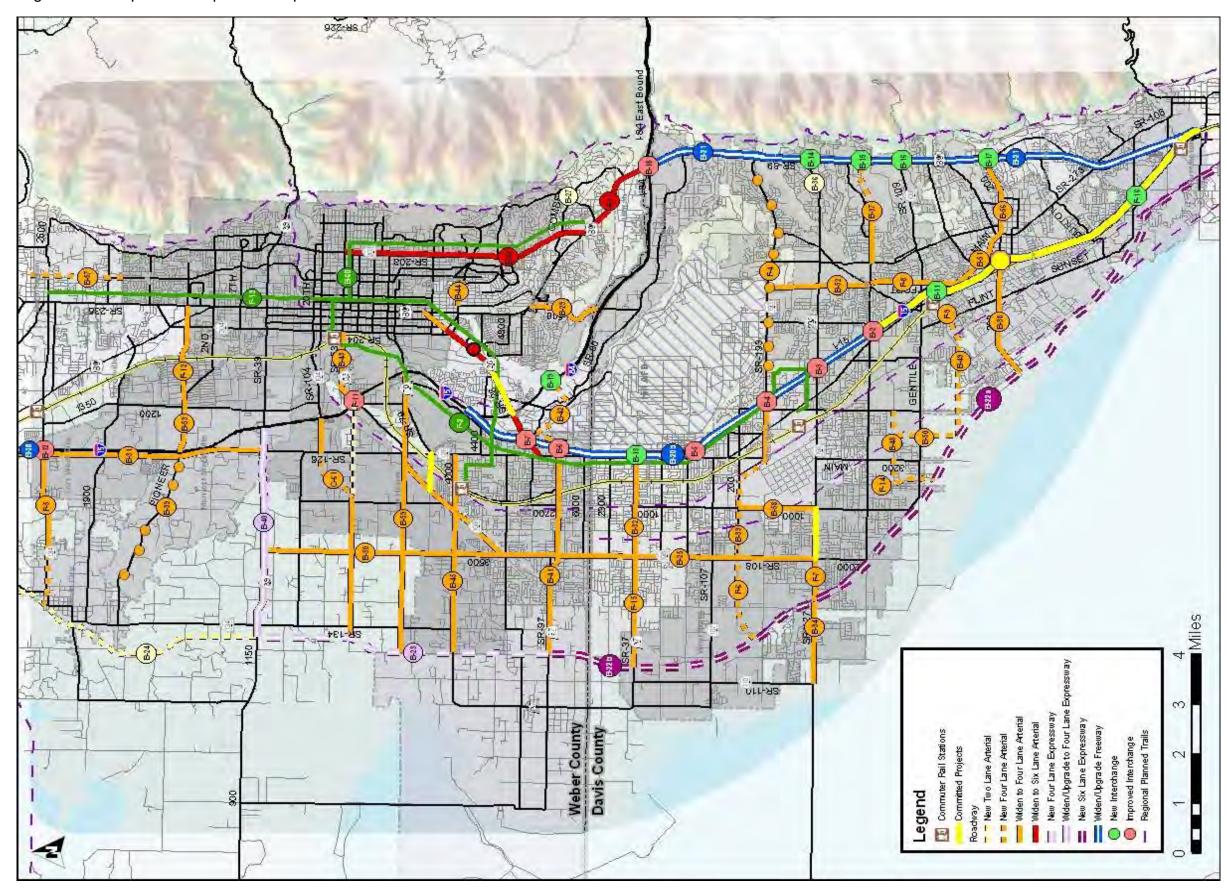
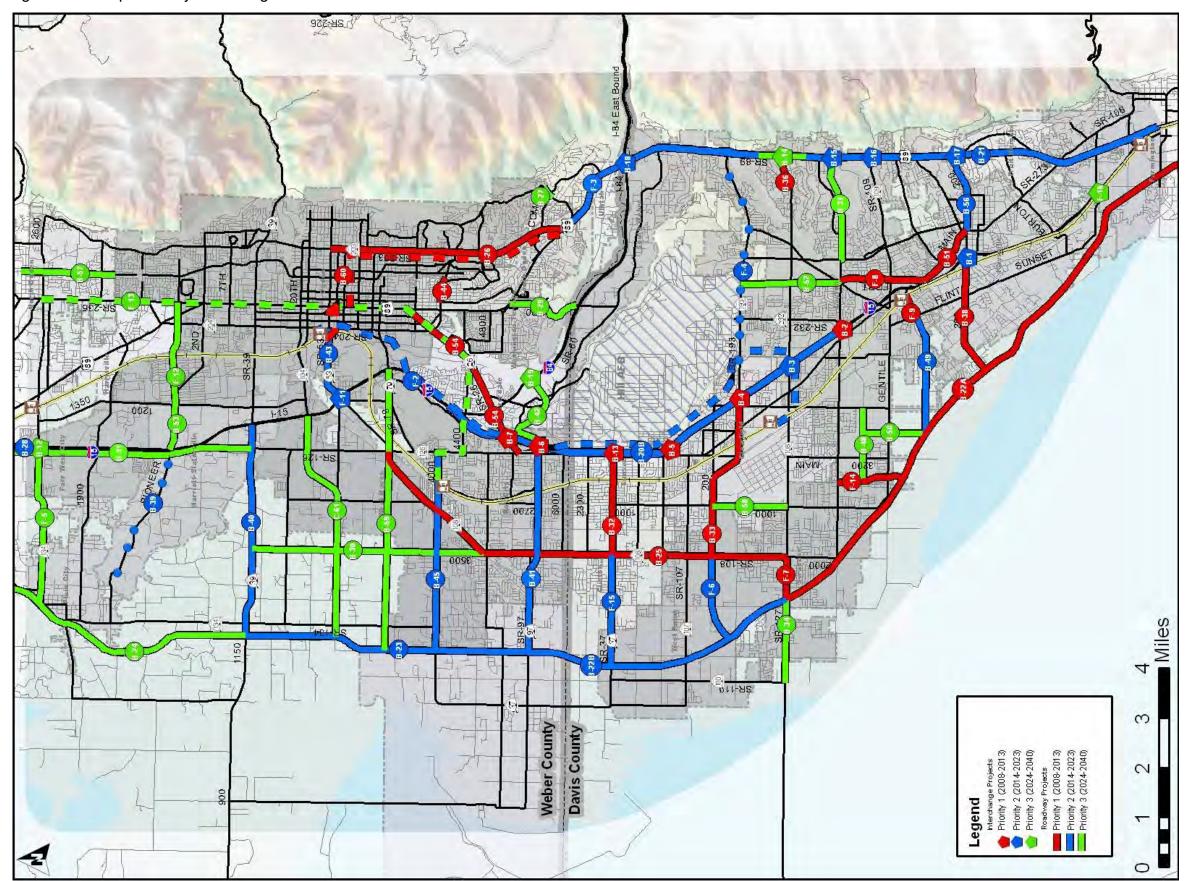


Figure 26: Anticipated Project Phasing







Appendix

- 1. Glossary of Terms
- 2. Project Fact Sheets
- 3. Socio-Economic data for each jurisdiction and by Traffic Analysis Zone (TAZ)
- 4. Travel Desire Patterns
- 5. Overview of Previous Studies; Purpose and Recommendations
- 6. Notes from jurisdiction (cities and unincorporated county) meetings
- 7. Agendas and Minutes of Steering and Working Group meetings
- 8. Open House flyer
- 9. Database of public comments and responses

